Natural Resources Conservation Service
Conservation Practice Standard

STRIPCROPPING, CONTOUR
(Ac.)
CODE 585

DEFINITION

Growing crops in a systematic arrangement of strips or bands on the contour to reduce sheet and rill erosion. The crops are arranged so that a strip of grass, close growing crop (example - wheat) or no-till planted crop is alternated with a strip of clean-tilled crop.

PURPOSE

The practice may be applied as part of a conservation management system to support one or more of the following:

- Reduce sheet and rill erosion.
- Retard or reduce surface runoff by promoting detention and infiltration.
- Entrap sediment-borne and soluble contaminants and facilitiate their transformation.
- Provide food and cover for wildlife.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies to all sloping cropland and other sloping land where crops are grown and the topography is uniform enough to permit the installation of this practice. This practice is most useful when used in conjunction with other conservation practices such as residue management, grassed waterways, and water and sediment control basins.

CRITERIA

Contour stripcropping will not control ephemeral or classic gully erosion. Where ephemeral or classic gully erosion is a problem, contour stripcropping will only be used in conjunction with water disposal systems such as diversions, grassed waterways, and water and sediment control basins, etc.

A specific conservation crop rotation system and residue management system will be planned to ensure an orderly rotation of crops and/or grasses, and adequate amounts of crop residue. Grazing of grass strips and/or crop residue will be controlled to maintain a minimum three (3) inch grass height or a six (6) inch Lespedeza Sericea height in the grass strips and to maximize crop residue and winter cover on cropped areas.

Current approved erosion prediction technology (RUSLE) will be used to determine the effectiveness of contour stripcropping. Slope length will not be reduced after the installation of this practice.

All planting and tillage operations will be contoured. Crop residue will remain on the cropped strips. Where residue is removed a winter cover crop will be planted.

To avoid damage to grass strips or rotated crops pest management practice code 595A will be planned and applied.

Layout of strips may be improved by removal of fences or other obstructions. Contours should be long and gentle to maximize efficiency of farming operations. Minor cutting and filling may be used to avoid correction strips and improve layout.

Strip Gradients

Contour strips will be on or as near to the contour as practical with maximum gradient of the strip not to exceed 0.5 foot per 100 feet. For better alignment grades may go up to 1.5 percent for a distance not to exceed 100 feet. Row grades into waterways or outlets will not exceed 1 percent, but should be sufficient for acceptable row drainage. When the grade deviation exceeds the limits, sodded correction strips or structures will be used.

Crop and Strip Widths

The strip widths and slope lengths identified in Table 1 will be used to determine the maximum crop strip widths when planning contour stripcropping systems.

A 10 percent variation in maximum crop strip width is permitted where needed to balance the area in strips or to obtain desired multiple rows for tillage, planting or spraying equipment. On steeper slopes and/or where high RUSLE C-factors (above .225) are used adjust crop strip widths downward.

Table 1: P-Factors, Maximum and Minimum Strip Widths, and Slope Length Limits for Contour Stripcropping

Land Slope Percent	Maximum Crop Strip Width			Minimum Crop Strip Width			USLE P-Value*			Maximum Slope Length Limits 1/
	A	B	C	A	B	C	A	B	C	
1 - 2.0	130	130	150	65	65	NA	.30	.45	.60	800
2.1 - 5.0	100	100	125	50	50	NA	.25	.38	.50	400
5.1 - 8.0	90	90	100	45	45	NA	.25	.38	.50	200
8.1 - 12.0	80	80	75	40	40	NA	.30	.45	.60	125

*RUSLE P-Value is located in Section ID3 of the FOTG. Contouring P-Factor for RUSLE must be calculated.

A. For 4-year rotation of row crop, small grain, and 2 years of grass/legume or mixture. A second row crop can replace the small grain if grass/legume or mixture is established in it.
B. For 4-year rotation of 2 years of row crop, one year of small grain, and 1-year grass/legume or mixture.
C. For alternate strip of row crop and small grain or no-till crop. When small grain is used row crops may be no-tilled into strips of small grain after harvest.

1/ Maximum slope length without a water disposal system for effective contour stripcropping.

Grass/Legume Selection and Maintenance

Select the appropriate perennial grass or grass/legume mixture based on soil compatibility, herbicide resistance, pest resistance, and compatibility with row crops. Good choices are Bahiagrass, Tall Fescue, Lespedeza Sericea, and Dallisgrass mixed with Annual Lespedezas, white clover or crimson clover. Bermuda grass would probably not be a good choice. Critical area planting specifications will be used.

CONSIDERATIONS

Grass/legume strips, grassed waterways, field borders, etc., may be utilized for grazing, hay or seed production provided a three (3) inch minimum height is maintained for grass/legume or mixtures, or, six (6) inch minimum height for Lespedeza Sericea.

Consider the use of plants with wildlife food or cover value that are consistent with the stripcropping system and purpose. For example, interseed Kobe Lespedeza into Lespedeza Sericea or wheat and Dixie Crimson Clover into Bahiagrass.

Consider planting flat or on very low beds (<3inches) instead of on high beds. Beds tend to concentrate water causing significant water disposal problems. Planting flat or on very low beds allows more uniform sheet movement of water greatly reducing water disposal problems. However, planting flat or on very low beds using fewer water disposal practices will increase the RUSLE P-subfactor and will require a lower C-value.

PLANS AND SPECIFICATIONS

Specifications for establishment and operation of this practice will be prepared for each field or treatment unit according to the criteria, considerations and operation and maintenance described in this standard. Specifications will be recorded using approved specification sheets, job sheets (approved by the State Agronomist) or narrative statements in the conservation plan.

OPERATION AND MAINTENANCE

- For grass/legumes mixtures clip and/or spray as needed to maintain proper cover and density.
- Soil test the grassed areas every three (3) years. If density of grasses drop below 80 percent, apply lime and fertilizer according to soil test.
- If grassed areas are harvested for hay fertilize annually and apply lime every three (3) to five (5) years if needed.
- Avoid build-up of soil at the up-slope edge of the grassed areas due to tillage or sedimentation. Avoid creation of furrows that will channel water down the side of the grassed area rather than through the grassed area.
- If build-up of soil occurs in the upper edge of the grassed area, remove the build-up area with blades, pans or other suitable equipment, then reseed area.
- When sediment or vegetative conditions have reduced grass cover conditions below 80 percent density, reseed the area with recommended grass/legume or mixtures.